OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC323509

FLT3 (NM_004119) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FLT3 (NM_004119) Human Untagged Clone
Tag:	Tag Free
Symbol:	FLT3
Synonyms:	CD135; FLK-2; FLK2; STK1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC323509 sequence for NM_004119 edited (data generated by NextGen Sequencing)

ATGCCGGCGTTGGCGCGCGACGGCGGCCAGCTGCCGCTGCTCGTTGTTTTTTCTGCAATG
ATATTTGGGACTATTACAAATCAAGATCTGCCTGTGATCAAGTGTGTTTTAATCAATCAT
AAGAACAATGATTCATCAGTGGGGAAGTCATCATCATATCCCATGGTATCAGAATCCCCG
GAAGACCTCGGGTGTGCGTTGAGACCCCAGAGCTCAGGGACAGTGTACGAAGCTGCCGCT
GTGGAAGTGGATGTATCTGCTTCCATCACACTGCAAGTGCTGGTCGATGCCCCAGGGAAC
ATTTCCTGTCTCTGGGTCTTTAAGCACAGCTCCCTGAATTGCCAGCCACATTTTGATTTA
CAAAACAGAGGAGTTGTTTCCATGGTCATTTTGAAAATGACAGAAACCCAAGCTGGAGAA
TACCTACTTTTTATTCAGAGTGAAGCTACCAATTACACAATATTGTTTACAGTGAGTATA
AGAAATACCCTGCTTTACACATTAAGAAGACCTTACTTTAGAAAAATGGAAAACCAGGAC
GCCCTGGTCTGCATATCTGAGAGCGTTCCAGAGCCGATCGTGGAATGGGTGCTTTGCGAT
TCACAGGGGGAAAGCTGTAAAGAAGAAAGTCCAGCTGTTGTTAAAAAGGAGGAAAAAGTG
CTTCATGAATTATTTGGGACGGACATAAGGTGCTGTGCCAGAAATGAACTGGGCAGGGAA
TGCACCAGGCTGTTCACAATAGATCTAAATCAAACTCCTCAGACCACATTGCCACAATTA
TTTCTTAAAGTAGGGGAACCCTTATGGATAAGGTGCAAAGCTGTTCATGTGAACCATGGA
TTCGGGCTCACCTGGGAATTAGAAAACAAAGCACTCGAGGAGGGCAACTACTTTGAGATG
AGTACCTATTCAACAAACAGAACTATGATACGGATTCTGTTTGCTTTTGTATCATCAGTG
GCAAGAAACGACACCGGATACTACACTTGTTCCTCTTCAAAGCATCCCAGTCAATCAGCT
TTGGTTACCATCGTAGAAAAGGGATTTATAAATGCTACCAATTCAAGTGAAGATTATGAA
ATTGACCAATATGAAGAGTTTTGTTTTTCTGTCAGGTTTAAAGCCTACCCACAAATCAGA
TGTACGTGGACCTTCTCTCGAAAATCATTTCCTTGTGAGCAAAAGGGTCTTGATAACGGA
TACAGCATATCCAAGTTTTGCAATCATAAGCACCAGCCAGGAGAATATATATTCCATGCA
GAAAATGATGATGCCCAATTTACCAAAATGTTCACGCTGAATATAAGAAGGAAACCTCAA
GTGCTCGCAGAAGCATCGGCAAGTCAGGCGTCCTGTTTCTCGGATGGATACCCATTACCA
TCTTGGACCTGGAAGAAGTGTTCAGACAAGTCTCCCAACTGCACAGAAGAGATCACAGAA
GGAGTCTGGAATAGAAAGGCTAACAGAAAAGTGTTTGGACAGTGGGTGTCGAGCAGTACT

View online »

CTAAACATGAGTGAAGCCATAAAAGGGTTCCTGGTCAAGTGCTGTGCATACAATTCCCTT
GGCACATCTTGTGAGACGATCCTTTTAAACTCTCCAGGCCCCTTCCCTTTCATCCAAGAC
AACATCTCATTCTATGCAACAATTGGTGTTTGTCTCCTCTTCATTGTCGTTTTAACCCTG
CTAATTTGTCACAAGTACAAAAAGCAATTTAGGTATGAAAGCCAGCTACAGATGGTACAG
GTGACCGGCTCCTCAGATAATGAGTACTTCTACGTTGATTTCAGAGAATATGAATATGAT
CTCAAATGGGAGTTTCCAAGAGAAAATTTAGAGTTTGGGAAGGTACTAGGATCAGGTGCT
TTTGGAAAAGTGATGAACGCAACAGCTTATGGAATTAGCAAAACAGGAGTCTCAATCCAG
GTTGCCGTCATGATGCTGAAAGAAAAAGCAGACAGCTCTGAAAGAGAGGCACTCATGTCA
GAACTCAAGATGATGACCCAGCTGGGAAGCCACGAGAATATTGTGAACCTGCTGGGGGCG
TGCACACTGTCAGGACCAATTTACTTGATTTTTGAATACTGTTGCTATGGTGATCTTCTC
AACTATCTAAGAAGTAAAAGAGAAAAATTTCACAGGACTTGGACAGAGATTTTCAAGGAA
CACAATTTCAGTTTTTACCCCACTTTCCAATCACATCCAAATTCCAGCATGCCTGGTTCA
AGAGAAGTTCAGATACACCCGGACTCGGATCAAATCTCAGGGCTTCATGGGAATTCATTT
CACTCTGAAGATGAAATTGAATATGAAAACCAAAAAAGGCTGGAAGAAGAGGAGGACTTG
AATGTGCTTACATTTGAAGATCTTCTTTGCTTTGCATATCAAGTTGCCAAAGGAATGGAA
TTTCTGGAATTTAAGTCGTGTGTTCACAGAGACCTGGCCGCCAGGAACGTGCTTGTCACC
CACGGGAAAGTGGTGAAGATATGTGACTTTGGATTGGCTCGAGATATCATGAGTGATTCC
AACTATGTTGTCAGGGGCAATGCCCGTCTGCCTGTAAAATGGATGGCCCCCGAAAGCCTG
TTTGAAGGCATCTACACCATTAAGAGTGATGTCTGGTCATATGGAATATTACTGTGGGAA
ATCTTCTCACTTGGTGTGAATCCTTACCCTGGCATTCCGGTTGATGCTAACTTCTACAAA
CTGATTCAAAATGGATTTAAAATGGATCAGCCATTTTATGCTACAGAAGAAATATACATT
ATAATGCAATCCTGCTGGGCTTTTGACTCAAGGAAACGGCCATCCTTCCCTAATTTGACT
TCGTTTTTAGGATGTCAGCTGGCAGATGCAGAAGAAGCGATGTATCAGAATGTGGATGGC
CGTGTTTCGGAATGTCCTCACACCTACCAAAACAGGCGACCTTTCAGCAGAGAGATGGAT
TTGGGGCTACTCTCTCCGCAGGCTCAGGTCGAAGATTCGTAG

Clone variation with respect to NM_004119.2
288 c=>t;1931 a=>t;1932 a=>g

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_004119 unedited
ACCGCCGTTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCATAACTTCGTATAGCATACATTATACGA
AGTTATGGAACAGGCCAAATCGGCCGAGCTCGAATTCGTCGAGAGCGGACCTGCAGCGCGAGGCGCGCCG
CTCCAGGCGGCATCGCAGGGCTGGGCCGGCGCGGCCTGGGGACCCCGGGCTCCGGAGGCCATGCCGGCGT
TGGCGCGCGACGGCGGCCAGCTGCCGCTGCTCGTTGTTTTTTCTGCAATGATATTTGGGACTATTACAAA
ATCAAGATCTGCCTGTGATCAAGTTGTGTTTTTAATCAATCATAAGAACCAATGGATTCATCCGTTGGGG
GAGGTCCATCATCATTATCCCATGGTTATCAAATTCCCCGGAAAGAACCTCGGGGGTGCCGTGAAGACCC
CAAAGCTAAGGACCAGGGTACGAAGCTGCGCTGGTGAAATGTGATTTATATCGGTTTCTCACACTCGCAA
GCGCTTGGCAGATCCCCCAGGGAACTATTTCCGTCTCTGGGTCTCTTAAACACAACGCTCCCGAGATTGC
CCCCCCCTTTGAATTTTACAAACAAGAGGTGTGGTCCCGGGGCCATGAGAATACACAAAACCCGCTCGGG
AAACCCCTCTTTATCCAGAGAGACACCCCTTTCACATTGTGTCACGAGGATAAGATACCCGGTTTCACTT
AAACATCCTCTTAAATGGAACAAGCCGTGTCGATTATGAGTCTCGAGTCATGGAGATGTCTCTGCGTACA
CGGGAGACGTTGAACAGCATCTCTATT

Kinase Domain Sequence:

>SC323509 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation
CCAGTTAGAKTTGGGAGGTACTAGGATCAGGTGCTTTTGGAAAAGTGATGAACGCAACAGCTTATGGAAT
TAGCAAAACAGGAGTCTCAATCCAGGTTGCCGTCATGATGCTGAAAGAAAAAGCAGACAGCTCTGAAAGA
GAGGCACTCATGTCAGAACTCAAGATGATGACCCAGCTGGGAAGCCACGAGAATATTGTGAACCTGCTGG
GGGCGTGCACACTGTCAGGACCAATTTACTTGATTTTTGAATACT

Restriction Sites:

Please inquire

ACCN:	NM_004119
Insert Size:	4000 bp
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_004119.1, NP_004110.1
RefSeq Size:	3848 bp
RefSeq ORF:	2982 bp
Locus ID:	2322
UniProt ID:	P36888
Cytogenetics:	13q12.2
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Transmembrane
Protein Pathways:	Acute myeloid leukemia, Cytokine-cytokine receptor interaction, Hematopoietic cell lineage, Pathways in cancer

Gene Summary: This gene encodes a class III receptor tyrosine kinase that regulates hematopoiesis. This receptor is activated by binding of the fms-related tyrosine kinase 3 ligand to the extracellular domain, which induces homodimer formation in the plasma membrane leading to autophosphorylation of the receptor. The activated receptor kinase subsequently phosphorylates and activates multiple cytoplasmic effector molecules in pathways involved in apoptosis, proliferation, and differentiation of hematopoietic cells in bone marrow. Mutations that result in the constitutive activation of this receptor result in acute myeloid leukemia and acute lymphoblastic leukemia. [provided by RefSeq, Jan 2015]
Transcript Variant: This variant (1) represents the shorter transcript and encodes the protein.